BISS Biodiversity Information Science and Standards

Biodiversity Information Science and Standards 2: e26496
doi: 10.3897/biss.2.26496

OPEN ACCESS

Conference Abstract

Bringing Back the Buzzing of the Bees: Enhancing the Discovery of Fossil Insect Collections with the ePANDDA API

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Received: 08 May 2018 | Published: 04 Jul 2018

Citation: Hendy A, Walker L, Krimmel E, Sessa J (2018) Bringing Back the Buzzing of the Bees: Enhancing the Discovery of Fossil Insect Collections with the ePANDDA API. Biodiversity Information Science and Standards 2: e26496. https://doi.org/10.3897/biss.2.26496

Abstract

The enhancing Paleontological and Neontological Data Discovery API (ePANDDA) project (NSF ICER 1821039) has developed an application programming interface (API) to integrate online paleontological and neontological databases, including the Paleobiology Database, iDigBio, and iDigPaleo. This connectivity provides a synthetic resource of information on all aspects of specimens, taxa, and localities. Here we present a case study that demonstrates how the ePANDDA API is being utilized to aid the digitization and dissemination of natural history collections, connect relevant disassociated data, and create added value to each of those resources.

The Invertebrate Paleontology Collection at the Natural History Museum of Los Angeles County (NHMLA) is presently contributing data to the NSF-funded Fossil Insect Collaborative TCN (http://fossilinsects.colorado.edu). A cornerstone of the “Fossil Insects of L.A.” contribution (NSF DBI 1702342) is the historic Georg Statz Collection of fossil insects from the Rott Formation (Oligocene) of Germany. This collection of spectacularly preserved compression fossils was extensively described between the 1920s and 1940s, creating a comprehensive published record, which has been entered into the Paleobiology Database. Several thousand specimens of Statz’ collection, including over 900 type specimens, left

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Europe in the 1950s to be permanently reposited at the NHMLA. While important to their long-term conservation, this move has hampered collection access by the research community.

The ePANDDA project will be able to link specimen record data hosted in iDigBio with bibliographic and taxonomic data reposited in the Paleobiology Database. In addition, programmatic development of the Paleobiology Database now allows for the tracking of fossil occurrences at the resolution of individual specimen records, and better documents the institutions with which those specimens are reposited. Therefore, images of NHMLA specimens, together with historic photographs, drawings, and annotations, will be discoverable through the Paleobiology Database and associated with the bibliographic records within which they were originally described or listed. Seamless search and discovery among these online resources enriches the potential of the historic Statz collection and augments its value for both research and education. We anticipate greater visibility of this and other NHMLA collections as a result of creating such linkages.

Keywords

ePANDDA, Paleobiology Database, iDigBio, fossil insects, digitization

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